The

Loan Arranger

Fall 2003

Revolving Loan and Operator Certification Section
Environmental Science and Services Division
Michigan Department of Environmental Quality DEQ

Let's Play "Twenty Questions"
by Jeffery Herrold

Many communities and their consultants have anxiously awaited more details about the new Strategic Water Quality Initiatives Fund (SWQIF) loan program. The answers are now available! Just go to our Clean Water Funds website at http://www.michigan.gov/deq/0,1607,7-135-3307_3515_4143---,00.html. Next, scroll down to the "Information" section and click on **SWQIF Questions and Answers**. Here you will find twenty critical questions about the new SWQIF program and twenty clear answers, beginning with an explanation of what projects qualify for SWQIF assistance and who can apply for a loan. The eligible components of on-site work are explored and program submittal requirements are outlined. A new procurement feature — the permissible use of pre-qualified contractors under a Request for Quotes/Qualifications (RFQ) process — is discussed.

We hope you find the **SWQIF Questions and Answers** to be informative and helpful. If, after reviewing the twenty answers, you have any remaining questions, please feel free to call us at 517-373-2161 or send an e-mail to www.heckathc@michigan.gov.

We also want to note that many of the State Revolving Fund (SRF) forms and guidance documents have been or will soon be updated to incorporate the new SWQIF loan program. These documents are found at our Forms and Guidance website at http://www.michigan.gov/deq/1,1607,7-135-3307_3515_4143-10784--,00.html.

We especially want to note that a new, combined **SRF/SWQIF Application for Financial Assistance** is now available. There are five application documents that you can download in either Microsoft Word, or Adobe Acrobat PDF format: Application Part I, Application Part II, Instructions for Part II, EPA Form 4700-4, and Application Part III.

St. Joseph Dives into the SRF
by Karol Smith

Surrounded by water on three sides; Lake Michigan to the west and the St. Joseph River to the east and the north, the city of St. Joseph celebrates its water. Residents and visitors to the city can enjoy 1.5 miles of public beaches on Lake Michigan, while boaters have their choice of six marinas. Among its many projects to increase and improve recreational opportunities, the city is in the process of constructing a 7-mile multiple-use pathway along its waterfront areas.

The city is also celebrating its water resources in a less obvious way. Like many other cities, St. Joseph has areas where combined sewers carry sanitary and storm water flows to the wastewater treatment plant. These sewers overflow during certain rain events, sending untreated sewage out to the St. Joseph River. When overflows occur, they affect water quality

and limit the use and enjoyment of this importance resource.

The city of St. Joseph has been working diligently to eliminate the combined sewer overflows. Studies have recommended sewer separation as the best solution to the problem. Also recommended was the replacement of an interceptor. The interceptor, located in a natural ravine, is suspected of contributing large amounts of groundwater through cracks in the pipe. This adds more clear water to the system that must be transported and treated, or overflow to the St. Joseph River. A new sanitary sewer or a new storm sewer will be installed, depending on the condition of the combined sewer. The city decided that at the same time aging water mains and additional storm sewers would be constructed.

The city of St. Joseph applied for a State Revolving Fund (SRF) loan in 1999. Prior to receiving SRF assistance, the city separated a portion of the combined sewers, eliminating two outfalls. The remaining work was divided into two segments. Segment I is currently under construction, while construction of Segment II is expected to begin during the spring of 2004. After both segments are completed, all of the overflow points will be eliminated. In September 2002, the city received a $2,040,000 loan from the SRF for Segment I. This represents the project costs associated with the pollution control aspects of the project. The total project cost for Segment II is estimated at $2,446,000. When completed, the citizens of St. Joseph, and the state will enjoy cleaner water.

Redirecting the Rain

by Edwyna McKee

All across the country, supervisors of municipal wastewater treatment plants in older, established cities keep an eye on the weather forecasts, always attuned to news of predicted rain, particularly extended rain events. The plant managers know that older wastewater systems, even those with separated storm and sanitary wastewater systems can quickly become overfilled with rainwater.

When it rains, a significant amount of rainfall finds its way into a typical, older sanitary wastewater system. Some of the rainwater flows down streets and through perforated manhole covers, while some seeps down through the soils, entering the sanitary system through pipe cracks, pipe joints, and points of structural weakness underground. Although, wastewater system maintenance programs traditionally have pipe repair/replacement components, even a system with a comprehensive maintenance record can still suffer when a large or lengthy storm floods the area.

Why? Prior to the late 1970s and early 1980s, we assumed that the rainwater falling on roofs, flowing down entering footing drains and eventually reaching the public sanitary sewer in the street was insignificant. It was widely believed that the roof/footing drain contribution was too small to substantially have an effect on the operation of the sanitary wastewater system.

"…flows [during/after rainfall] could be as high as 12-15 times the dry weather sanitary flow."

However, many in the profession were surprised when 1970's and 1980's studies found that flows into established sanitary systems during and following a range of rainfall events could be as high as 12-15 times the dry weather sanitary flow.

These flows from roof and footing drains were periodically overwhelming the sanitary system, causing the sanitary sewers to disgorge a dilute mixture of sanitary sewage and rainwater, into the streets, rivers, and sometimes into basements.

As many older, larger Michigan cities discovered, removing infiltration and inflow from sanitary trunk sewers and interceptors did not always eliminate wet weather overflows from their sanitary systems. It became increasingly clear that for many cities, especially those containing a

large proportion of homes built pre-1980, a significant amount of water that caused sanitary systems to exceed their capacities was originating on private property, specifically from homeowners' footing drains. The footing drain is the most common type of foundation water removal system, and is the preferred method for new construction. Typically, a perforated collection pipe is laid alongside the footing that supports the wall. Rock is then added around the collection pipe to act as a filter for sediments, and to allow the infiltrating water to fill the pipe. Roof drains may also be connected to the collection pipe. The collected rainwater then flows to a drywell, drain field, storm drain system, or in the case of many of Michigan's older municipal systems, into the sanitary sewer lead connected directly to the city's sanitary system.

In November of 2002, a majority of Michigan's registered voters agreed to the issue of a 'Billion Dollar Bond' (Proposal 2) which was approved for financial support of two programs: one existing program, the State Revolving Fund, (SRF) provides low interest loans to communities for publicly-owned wastewater facilities, and one new program, the Strategic Water Quality Initiatives Fund (SWQIF). The SWQIF made news because it is the first loan program that was created especially for Michigan communities needing to perform work on private property, such as replacement of failing septic systems and, perhaps even more critically, the disconnection of privately owned footing drain connections to public sanitary systems. Another financing option is now available for cities with combined or separated systems, which overflow during, or following rainstorms.

For Fiscal Year (FY) 2004, the first year that SWQIF funds are "available," two communities have applied for low-interest loans to fund footing drain disconnection (FDD) work on private property. Careful system monitoring and planning lead to identification of FDD work in selected areas as the cost-effective solution to prevent surcharging, untreated sewage going into basements, and discharging to waterways. Both of the applicants have undertaken pilot programs before applying to the SWQIF, in order to 'test' the private-property aspect of their FDD programs, and to monitor program effectiveness at reducing system surcharging.

One of this year's applicants currently has FDD-related projects on both the SWQIF *and* SRF Project Priority Lists (PPL) for FY2004 loans. In order to complete their disconnection/redirection projects, work in the public right-of-way is also needed. Construction of shallow storm drain connection pits to redirect the flows from footing drains to the storm sewer system has been planned, using SRF financing.

Although FDD projects require considerable coordination and can be costly to implement, the community receives a pot o' gold at project end: elimination of public health hazards from sewage in basements, ponding in streets, and discharging to waterways. In addition, since less water is expected to be flowing through the existing system to the wastewater treatment plant, sewer system and wastewater treatment operation costs can be substantially reduced.

Moreover, if enough rainwater is removed from the system, additional system capacity is created, reducing the need to make existing wastewater treatment systems ever larger. Other approaches exist that can assist FDD programs in keeping rainwater out of the sanitary systems such as rooftop gardens, sidewalk storage, vegetated swales, buffers and strips, rain barrels and cisterns, rain gardens and permeable pavement. These methods may need to be implemented on a substantial scale, but can reap benefits to the community in their wastewater system management.

The FY2004 interest rate of the SWQIF loans has been set at 1.625 percent for twenty-year loans. Although the interest rates can be very attractive, current budgets of many Michigan communities may not stretch far enough to obtain even a low-interest loan. This may be an ideal opportunity for communities to spend time evaluating rainwater removal from privately owned property, as well as other alternatives. The revolving fund programs each require that an applicant-community submit a comprehensive plan identifying the cost-effective alternative(s)

for solutions to the entire system's needs, providing a level of information similar to a typical capital improvements plan.

Thoughtful planning now may enable a community to be ready to apply for a SWQIF and/or SRF loan for FY05 and beyond. Contact the Revolving Loan and Operator Certification Section (addresses on back page) for more information on community participation in the loan programs.

DEQ Announces Loan Commitments through SRF and DWRF

The Department of Environmental Quality (DEQ) recently announced five new loan commitments from the State Revolving Fund (SRF) and four new commitments from the Drinking Water Revolving Fund (DWRF), totaling over $68 million. Using federal capitalization grants and a required state match, the SRF provides low-interest financing for local units of government to make needed improvements to wastewater collection and treatment facilities, while assistance from the DWRF finances improvements to public drinking water systems.

The funded SRF projects include:

• $1,990,000 to the city of Trenton for the fifth in a series of six loans to construct improvements to its wastewater collection and treatment system. To date Trenton has received nearly $42 million in SRF financing, using most of these funds for the elimination of sanitary sewer overflows.

• $4,750,000 for the upgrade of the wastewater treatment plant in the city of Warren. A second loan to complete the project is anticipated in the fall of 2004.

• $25,800,000 to the city of Detroit to finance the fourth in a series of projects to upgrade facilities at the Detroit Wastewater Treatment Plant to insure adequate treatment of dry weather flows.

• $2,770,000 to the village of Stockbridge for the upgrade and expansion of its wastewater treatment system.

• $2,550,000 for the construction of a flow equalization basin in Marysville. This facility will prevent the discharge of inadequately treated wastewater to the St. Mary's River

These commitments bring the total of SRF financing awarded to Michigan communities since the inception of the program to over $1.9 billion. These loans underscore the strong local commitment that is evident in Michigan to ensure protection of the state's valuable water resources and the public health of its citizens.

The funded DWRF projects include:

• $19,180,000 in loan assistance to the city of Flint to complete reconstruction of its water treatment facility. This loan is the fourth and last for this project and brings Flint's total DWRF assistance to nearly $44 million. The renovated facility will permit the delivery of a safe, reliable water supply to system customers in the event supply from the city of Detroit is disrupted.

• A $6,840,000 loan to the city of Saline for the construction of a new water treatment facility.

• A $1,450,000 loan to the city of Portland for the construction of a new elevated storage tank and the construction of a new supply well.

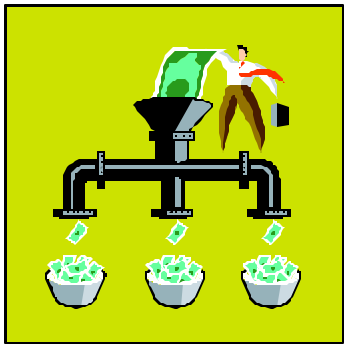
• A $3,570,000 loan to the city of Davison. This loan will finance the upgrade of the city's water treatment facility for the removal of Arsenic, and the construction of a new supply well. Combined with a loan received in June of this year, Davison has now received $6 million from the DWRF.

The improvements financed by these loans will ensure compliance with the requirements of the Safe Drinking Water Act and protect the public health of system users in these communities.

The DEQ Director Steven Chester noted that these programs continue to represent the primary source of financial assistance available to local governments and underscored the fact that revolving loan funds continue to be the most effective means of providing assistance for critical water and wastewater infrastructure needs.

"As the wastewater and drinking water infrastructures in Michigan continue to age, the demand for assistance like that provided by the SRF and DWRF programs will continue to grow," said Director Chester. "Federal and state revolving fund mechanisms deliver more infrastructure construction per investment dollar. In addition, they ease the financial burden of necessary system improvements through below market interest rates, while ensuring that continued funding capabilities exist for future years. FY2003 has seen Michigan award in excess of $250 million in assistance between the two programs."

Interest Rates Set for Fiscal Year 2004



The Department of Environmental Quality (DEQ) and the Michigan Municipal Bond Authority have set the interest rates for the three revolving loan funds, the State Revolving Fund (SRF), the Drinking Water Revolving Fund (DWRF), and the Strategic Water Quality Initiatives Fund (SWQIF) programs, for Fiscal Year 2004. These rates are effective through September 20, 2004.

Loan Program	Interest Rate
SRF	2.125%
DWRF	2.125%
SWQIF	1.625%

These rates are based upon the demand for financing in the coming year, anticipated future demand for financing, consideration of market interest rates available for borrowers, and evaluation of additional costs to borrowers for program participation in each fund. They were generated using the Interest Rate Methodology established in June 2003.

These rates will be incorporated in to the State's Intended Use Plans for submission of capitalization grant applications, in accordance with the 1987 amendments to the federal Clean Water Act, and the 1996 amendments to the federal Safe Drinking Water Act.

Deadlines for Submission of Project Plans for the Fiscal Year 2005 Project Priority Lists

Drinking Water Revolving Fund – Project Plans must be received in our office by close of business on May 1, 2004 OR postmarked no later than that date.

State Revolving Fund – Project Plans must be received OR postmarked no later than July 1, 2004.

Making Tracks

The Revolving Loan and Operator Certification Section is pleased to announce the permanent assignment of Ms. Deana Bishop. Ms. Bishop will serve as the section secretary, handling most administrative activities for the section and will also serve as editor of the Loan Arranger. She has been with the DEQ since early 2000 and most recently served as secretary to the Assistant Division Chief of the Environmental Science and Services Division.

If you want it…here it is…call and get it….but you better hurry because it's going fast….

If you know someone who would like to be added to *The Loan Arranger* mailing list, or have an address change, please e-mail the editor, Deana Bishop, at bishopd@michigan.gov

The Loan Arranger

ENVIRONMENTAL SCIENCE AND SERVICES DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30457
LANSING MI 48909-7957

Return Service Requested

FIRST CLASS
U.S. POSTAGE
PAID
LANSING, MI
PERMIT NO. 1200

State of Michigan
Jennifer M. Granholm, Governor
Michigan Department of Environmental Quality
Steven E. Chester, Director
Environmental Science and Services Division
Amy A. Butler, Chief
REVOLVING LOAN AND OPERATOR CERTIFICATION SECTION
Chip Heckathorn, Section Chief
Dave Krusik, Project Management Unit – East Chief
Wendy Jansma, Project Management Unit – West Chief
Sonya Butler, Technical Support Unit Chief
Eric Way, Operator Training and Certification Unit Chief
Telephone: 517-373-2161 Fax: 517-335-0743
INTERNET: www.michigan.gov/deq
***The Loan Arranger* is published tri-annually by the Revolving Loan and Operator Certification Section.**
Correspondence may be addressed to *The Loan Arranger* Editor:
REVOLVING LOAN AND OPERATOR CERTIFICATION SECTION
ENVIRONMENTAL SCIENCE AND SERVICES DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30457
LANSING MI 48909-7957